

## ABSTRACT

Systems and methods consistent with this invention allow for each node within one or more rings to obtain connection and topology information from other nodes within these rings. In such a system, each node is able to maintain connection table and topology tables for each node and each ring within a ring network. In particular, such information can be kept current because this scheme allows for dynamic updating of connection and topology information in real time. With such current information, a node is able to utilize this information to execute such operations as squelching connections on a protect line and timeslot interchange. In addition, by supporting timeslot interchange, the ring can be managed as more than a single logical entity as well as can have better bandwidth management utilization.